

September 10, 2019

Arcelor Mittal USA, Inc.
250 W US Highway 12
Burns Harbor, IN 46304-9745

Work Order No.: 19I0393

Re: LLHg - 001

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 9/8/2019 10:30:00AM for the analyses presented in the following report as Work Order 19I0393.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at ron.misiunas@microbac.com.

Sincerely,
Microbac Laboratories, Inc.



Carey Gadzala
Project Manager



WORK ORDER SAMPLE SUMMARY**Date:** *Tuesday, September 10, 2019*

Client: Arcelor Mittal USA, Inc.**Project:** LLHg - 001**Lab Order:** 19I0393

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I0393-01	Field Blank		09/07/2019 10:37	9/8/2019 10:30:00AM
19I0393-02	001-Grab	001	09/07/2019 10:40	9/8/2019 10:30:00AM
19I0393-03	001- DUP	001	09/07/2019 10:42	9/8/2019 10:30:00AM

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 800.536.8379 p | 219.769.8378 p | 219.769.1664 f | www.microbac.com

Analytical Results

Date: Tuesday, September 10, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0393-01
Client Project:	LLHg - 001	Sampled:	09/07/2019 10:37
Client Sample ID:	Field Blank	Received:	09/08/2019 10:30
Sample Description:			
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: EPA 1631E			Analyst: BTM			
Total Mercury using CVAFS - Heated Preparation									
Prep Date/Time: 09/08/2019 14:13									
Mercury	eijlm	A	ND	0.118	0.500		ng/L	1	09/10/2019 13:12

Analytical Results

Date: *Tuesday, September 10, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0393-02
Client Project:	LLHg - 001	Sampled:	09/07/2019 10:40
Client Sample ID:	001-Grab	Received:	09/08/2019 10:30
Sample Description:	001		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: EPA 1631E			Analyst: BTM			
Total Mercury using CVAFS - Heated Preparation									
Prep Date/Time: 09/08/2019 14:13									
Mercury	eijlm	A	0.240	0.118	0.500		ng/L	1	09/10/2019 13:14

Analytical Results

Date: *Tuesday, September 10, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0393-03
Client Project:	LLHg - 001	Sampled:	09/07/2019 10:42
Client Sample ID:	001- DUP	Received:	09/08/2019 10:30
Sample Description:	001		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: EPA 1631E			Analyst: BTM			
Total Mercury using CVAFS - Heated Preparation									
Prep Date/Time: 09/08/2019 14:13									
Mercury	eijlm	A	0.234	0.118	0.500		ng/L	1	09/10/2019 13:16

ANALYTE TYPES: (AT)

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)



QC SAMPLE IDENTIFICATIONS

BLK = Method Blank

DUP = Method Duplicate

BS = Method Blank Spike

MS = Matrix Spike

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank

CRL = Client Required Reporting Limit

PDS = Post Digestion Spike

QCS = Quality Control Standard

ICSA = Interference Check Standard "A"

ICSAB = Interference Check Standard "AB"

BSD = Method Blank Spike Duplicate

MSD = Matrix Spike Duplicate

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

OPR = Ongoing Precision and Recovery Standard

SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

^d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

ⁱ Kansas Dept Health & Env. NELAP (#E-10397)

^j Kentucky Wastewater Laboratory Certification Program (#108202)

^l North Carolina DENR NPDES effluent, surface water (#597)

^m New York State Department of Health (#12006)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

MDL:	Minimum Detection Limit
RL:	Reporting Limit
RPD:	Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler

Temp: °C
 MICROBAC®

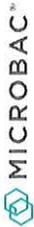
Cooler Inspection Checklist

Ice Present or not required?	Yes
Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes
Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes
Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes
Sample type identified on COC?	Yes
Correct type of Containers Received	Yes
Correct number of containers listed on COC?	Yes
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes
Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes
Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes

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CHAIN OF CUSTODY RECORD



Number **152762**
Instructions on back

Lab Report Address: **AMBH**
 Invoice Address: **AMBH**
 Client Name: **AMBH**
 Address:
 City, State, Zip:
 Contact:
 Telephone No.:

Turnaround Time:
 Routine (5 to 7 business days)
 RUSH* (notify lab)

Temperature Upon Receipt (°C)
 Therm ID
 Holding Time

Samples Received on Ice? Yes No **N/A**
 Custody Seals Intact? Yes No **N/A**

Results Only Level 1 Level 2 Level 3 Level 4 EDD

Send Report via: Mail Fax e-mail (address)

Send Invoice via: Mail Fax e-mail (address)

Project: **B. Otto** PO No.:

Compliance Monitoring? Yes No
 Agency/Program

Sampler Signature: **B. Otto** Sampler Phone No.: **769-8378**

Sampled by (PRINT): **B. Otto**

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)
 ** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Sample Disposition	Received By (signature)	Date/Time
FB 179137	9/7/19	1037	1	AQ	G	u	<input type="checkbox"/> Dispose as appropriate <input type="checkbox"/> Return <input type="checkbox"/> Archive	<i>[Signature]</i>	9/8/19 1030
001 179768	↓	1040	1	↓	↓	u			
201 Dup 179134	↓	1042	1	↓	↓	u			
Possible Hazard Identification <input type="checkbox"/> Hazardous <input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Radioactive Comments:									

Requested Analysis

19I0393
 Carey Gadzala
 ArcelorMittal - Burns Harbor, IN
 LLHg - 001
 09/08/2019

Additional Notes:
 01
 02
 03